

THE GREEN MOUNTAIN GEOLOGIST



QUARTERLY NEWSLETTER OF THE VERMONT GEOLOGICAL SOCIETY

VGS Website: <http://www.uvm.org/vtgeologicalsociety/>

FALL 2009

VOLUME 36

NUMBER 4

TABLE OF CONTENTS

WINTER 2010 MEETING ANNOUNCEMENT.....	2
ANNUAL MEETING AND ELECTION.....	3
PRESIDENT'S LETTER	3
SUMMER MEETING MINUTES.....	3
TREASURER'S REPORT	3
ADVANCEMENT OF SCIENCE COMMITTEE REPORT	4
VERMONT STATE GEOLOGIST'S REPORT	4
ANNOUNCEMENTS	5
VERMONT GEOLOGICAL SOCIETY CALENDAR	6
EXECUTIVE COMMITTEE	6
BALLOT	7

**Vermont Geological Society
Winter Meeting****Call for Presentations****Geologic Controls on River Systems in the Northeastern U.S.**

Norwich University, Northfield, Vermont
Saturday, February 6, 2010, 9:00 AM

The Vermont Geological Society invites presentations on the influence of surficial and bedrock geology on the stability and evolution of river systems in the northeastern U.S. The State of Vermont has pioneered the application of fluvial geomorphic principles to community planning, ecosystem restoration and conservation, and hazard mitigation. Neighboring states of New Hampshire, Maine, and New York are also developing river management programs that incorporate the science of fluvial geomorphology. The goal of this meeting is to bring together professionals and citizens engaged in river and watershed studies and to highlight the influence of surficial and bedrock geology on the present-day form, processes, condition, and sensitivity of our fluvial systems.

The keynote speaker will be John Field, Ph.D., of Field Geology Services, Farmington, Maine.

Professionals, students, and citizen scientists working in the fields of geology and fluvial geomorphology are invited to present results of their work. **Each oral presentation will be 15 minutes, with 5 minutes for questions and answers. Poster presentations are also encouraged.** It is hoped that the meeting will include a combination of applied as well as academic studies. These can be either field-based or theoretical/conceptual in nature. Suggested topics include:

- Characterization/assessment methods
- Watershed hydrology/floods
- Groundwater/surface water interactions
- Sediment transport
- Ecosystem processes
- Geoarchaeology
- Historic landscape development
- Holocene landscape evolution
- Water quality
- Hillslope processes/mass movement
- River restoration design
- Fluvial erosion/landslide hazard mapping

Abstracts Due: January 11, 2010

For more information, contact:

George Springston, President, Vermont Geological Society, (802) 485-2734,
gsprings@norwich.edu

To submit an abstract, contact:

Kristen Underwood, South Mountain Research & Cons., (802) 453-3076,
southmountain@gmavt.net

ANNUAL MEETING AND ELECTION

No Annual Meeting will be held this year. Four officers will be elected by a combination of electronic and paper ballots. The ballot was sent as a Word document to all members receiving the GMG electronically, but it is also included at the end of this issue. Members are encouraged to send their voted ballots by e-mail to Kristen Underwood at southmountain@gmavt.net. Members without access to e-mail should send their voted paper ballots to David West, Dept. of Geology, Middlebury College, Middlebury, VT 05753. The deadline for the receipt of both electronic and paper ballots is December 3, 2009 at 5:00 PM.

PRESIDENT'S LETTER

[Unavailable at publication time]

SUMMER MEETING MINUTES

No Executive Committee Meeting was held following the Society's Summer Field Trip to Smugglers' Notch, Vermont area on August 15, 2009.

TREASURER'S REPORT

The financial condition of the Society continues to be very strong. As of October 1, 2009, the checking account balance was \$6,910.83. To my knowledge, there are no outstanding bills. A financial statement for the period 9/22/08-10/1/09 is indicated below.

The Society has five student members, two of whom received free membership for one year as an additional benefit of having been awarded Research Grants. Income slightly exceeded expenses during this 12-month period, primarily due to membership dues and voluntary Research Grant contributions more than offsetting increased Research Grant awards. The *Green Mountain Geologist* was printed this year at no cost to the Society due to the generosity of the Department of Geology at Middlebury College. In addition, the Society did not incur any VGS Lecturer expenses this fiscal year, and meeting expenses decreased.

The 2010 membership renewal and directory information form will be mailed out to all members by December 31, 2009. The deadline for renewal will be January 31, 2010.

Respectfully submitted,
Stephen S. Howe, Treasurer

Income and Expenses
9/22/08-10/1/09

INCOME

Total Dues (2009 membership)		\$1,479.00
Member	\$1,155.00	
Family	\$240.00	
Student	\$24.00	
Institution	\$60.00	
Student Research Grant Contributions		\$560.00
Miscellaneous Donation		\$2.00
Delinquent 2008 Membership Dues		\$15.00
<i>Vermont Geology</i> Sales		\$10.00
TOTAL INCOME		\$2,066.00

EXPENSES

<i>Green Mountain Geologist</i> Printing		\$0.00
Postage		\$72.70
Office Supplies		\$10.59
Post Office Box Rental (to 8/1/10)		\$60.00
VGS Lecturer Reimbursement		\$0.00
Winter Meeting Speaker Reimbursement		\$140.00
Winter Meeting Refreshments		\$13.28
Spring Meeting Refreshments		\$80.40
Awards		\$1,612.40
Research Grants	\$1,387.40	
Spring Meeting Student Talks	\$225.00	
TOTAL EXPENSES		\$1,989.37
 TOTAL INCOME – TOTAL EXPENSES		 \$76.63

ADVANCEMENT OF SCIENCE COMMITTEE REPORT

[Unavailable at publication time]

STATE GEOLOGIST'S REPORT

National Geothermal Data System – Grant Accepted by DOE

The Association of American State Geologists (AASG) organized a coalition of 40 state geological surveys to populate the Department of Energy's (DOE) National Geothermal Data System with relevant state-specific geothermal data. The national project is to receive \$17.79 million from the DOE over 3 years. As part of the grant, the Vermont Geological Survey is to receive over \$150,000 to compile state-specific geothermal data in an integrated distributed and searchable data system that should drive renewed efforts to identify, assess, and exploit geothermal energy resources in Vermont. This effort is a national collaboration of State and Federal agencies, universities, and industry, with the potential to reshape America's energy landscape, reduce greenhouse gas emissions, and leverage non-renewable petroleum resources well into the 21st Century.

Statemap Projects, delivered October 31, 2009 to USGS

Town of Charlotte, 1:24,000 scale, Bedrock (Marjorie Gale and Jon Kim, VGS) and Surficial Geology (George Springston, Norwich University and Stephen Wright, UVM). Town of Rutland, 1:24,000 scale, Surficial Geology (John Van Hoesen, Green Mountain College).

Smugglers' Notch

George Springston of Norwich University and the State Geologist met with the Secretary of the Agency of Natural Resources and the Commissioner of Forest Parks and Recreation to present the results of a geologic study undertaken to assess rock fall and debris flow risk in Smugglers' Notch. The study will help guide management decisions in the Notch. An immediate outcome of the report is installation of warning signs at the approaches to the Notch and the closing of informal parking areas at the base of potential debris flow pathways.

Jeffersonville – Monitoring for Potential Slope Instability

In cooperation with George Springston of Norwich University and Les Kanat of Johnson State College, drilling was performed at the top of the high and steep bank above the Jeffersonville, Vermont Elementary School to better assess the risk of potential slope failure. A monitoring cable that can indicate internal movement within the bank was installed and will be read on a periodic basis by using time-domain reflectometry recording equipment.

Hazards Funding

The State Geologist continues to obtain funds in cooperation with Vermont Emergency Management for hazard studies in cooperation with George Springston of Norwich University. Three new sources of funds were added this year. The VGS obtained a nationally competitive Pre-disaster Mitigation Grant for \$92,628 from FEMA to finalize a landslide mapping protocol that will be an addendum to the State Hazard Mitigation Plan (Anne Clift supported the grant writing effort). The Agency of Natural Resources (ANR) Clean and Clear funds supports slope instability assessments in cooperation with ANR's Rivers Management section. This involves visiting failure sites associated with river corridors and co-development of realistic river corridor set backs. In 2009, The State Geologist received news that a National Earthquake Hazard Reduction Program grant of \$50,600 will support a site class, amplification, and liquefaction mapping project for the Burlington area to work with critical facilities that are at risk of damage from earthquake shaking. To conduct the work, the Vermont Geological Survey plans to work in cooperation with Norwich University and Professor Mandar Dewoolkar of the Civil Engineering Department at the University of Vermont.

Respectively submitted,
Laurence R. Becker, State Geologist

ANNOUNCEMENTS**VERMONT GEOLOGICAL SOCIETY LECTURER PROGRAM**

The goal of the Vermont Geological Society Lecturer Program is to offer local colleges, universities, and high schools the opportunity to invite a member of the VGS to speak at their institution on timely topics within the broad realm of earth and environmental sciences. The program is primarily intended to reach those departments which either do not hold a regularly scheduled seminar series or whose finances do not permit them to invite external speakers to present talks on a regular basis. Any costs associated with the Lecturer's travel, lodging, and meals are borne entirely by the Vermont Geological Society.

Stephen Wright, Ph.D., Department of Geology, University of Vermont, is our 2009 Lecturer. Stephen is offering the following lecture topic: "Glacial Geology of Northern Vermont: Ice Flow, Water Flow, and

Glacial Lake History.” For scheduling information, see the Society’s website at http://www.uvm.org/vtgeologicalsociety/lecturer_program.html

USGS REPORT AVAILABLE ON-LINE

Greg Walsh sends word that the following publication is available on-line only at <http://pubs.usgs.gov/of/2009/1229/>:

Walsh, G. J., 2009, A method for creating a three dimensional model from published geologic maps and cross sections: U.S. Geological Survey Open-File Report 2009–1229, 16 p.

VERMONT GEOLOGICAL SOCIETY CALENDAR

- 2/6/10 VGS Winter Meeting, Geologic Controls on River Systems in the Northeastern U.S., Norwich, Vermont
- 3/13-16/10 Geological Society of America Northeastern/Southeastern Combined Meeting, Baltimore, Maryland

The **Vermont Geological Society** is a non-profit educational corporation comprised of academic, industry, and state government members interested in promoting the study of geology in the State of Vermont.

The **Executive Committee** of the Society is comprised of the Officers, the Board of Directors, and the Chairs of the Permanent Committees.

Officers

President	George Springston	(802) 485-2734	gsprings@norwich.edu
Vice President	John Van Hoesen	(802) 287-8387	vanhoesenj@greenmtn.edu
Secretary	David West	(802) 443-3476	dwest@middlebury.edu
Treasurer	Stephen Howe	(518) 442-5053	showe@albany.edu

Board of Directors

Richard Dunn	(802) 485-2304	rdunn@norwich.edu
Les Kanat	(802) 635-1327	les.kanat@jsc.edu
Jon Kim	(802) 241-3469	jon.kim@state.vt.us

Chairs of the Permanent Committees

Advancement of Science	Jon Kim
Geological Education	Christine Massey
Membership	Stephen Howe
Public Issues	Laurence Becker
Publishing	Stephen Howe

VERMONT GEOLOGICAL SOCIETY BALLOT

This year, Members will be voting for four Officers. Associate Members, Student Members, and Honorary Members are not eligible to vote per Society Bylaws.

All existing Officers have agreed to stand for reelection. Returning members of the Board of Directors are Richard Dunn, Les Kanat, and Jon Kim. Permanent Committee Chairs are:

Advancement of Science Committee: Jon Kim

Geological Education: Christine Massey

Membership: Stephen Howe

Public Issues: Laurence Becker

Publications/Editorial: Stephen Howe

Please enter your name and address here:

Officers

President George Springston _____

Vice-President John Van Hoesen _____

Secretary David West _____

Treasurer Stephen Howe _____

Those members voting electronically should return the Word document ballot attached to an e-mail message to Kristen Underwood at southmountain@gmavt.net. Members without access to e-mail should send their voted paper ballots to David West, Dept. of Geology, Middlebury College, Middlebury, VT 05753. **The deadline for the receipt of both electronic and paper ballots is December 3, 2009 at 5:00 PM.**

Vermont Geological Society
P.O. Box 1224
Saint Albans, VT 05478-1224

ADDRESS CHANGE?

Please send it to the Treasurer at the above address

Don't forget to vote!

